

App. No. 10/758517
Office Action Dated June 30, 2005

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claim 23 is hereby amended. No new matter has been added. Claims 23-34 are pending.

The amendment of claim 23, reciting "one main surface of a wiring substrate and at least one non-heat generating component on a surface opposite the one main surface", is supported, for example, by Figures 1, 4, 6d, 8d, and 9d and page 10, lines 22-24. The amendment of claim 23, reciting "with at least one non-heat generating component being in a position other than a position immediately opposite to the position of the heat generating component", is supported, for example, by Figure 1 and page 10, lines 15-21.

Claims 23-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Chung (US 6,496,373.) Applicants respectfully traverse this rejection.

The mounting of the non-heat generating components taught by Chung is different from that of claim 23. Chung does not disclose at least one non-heat generating component is mounted on a surface opposite the one main surface, and is disposed in a position other than a position immediately opposite to the position of the heat generation component, as required by claim 23. Having such arrangements is advantageous, for example, in the overall size reduction of the power module and preventing heat exposure to the non-heat generating components that might be sensitive to heat, respectively. See, e.g., page 10, lines 22-29 of the Specification.

Moreover, Chung fails to disclose the forming of the thermally conductive layer and electrically insulating member in stages, forming a curable composition layer and subsequently curing the layer with heat, as required by claim 23. The advantage of forming a curable composition layer prior to curing, for example, is to allow the thermoplastic resin power to solidify by absorbing a liquid component of the curable composition layer. This intermediate stage provides an opportunity to check for thermally conductive and electrically insulating members that are not adequately adhered to the heat generating component or the heat sink, and remove them prior to curing. See, e.g., page 24, lines 1-8 of the Specification.

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Further, the curing process taught by Chung is different from claims 27-29. The curing process disclosed by Chung is performed at 40°C to 50°C and up to 75°C by flow melting and by decreasing the viscosity of the resins. Col. 4, lines 20-33. In contrast, claims 27-29 require the solidifying and curing process done by increasing the viscosity of the composition layer. As mentioned previously, one of the advantages of increasing the viscosity and thereby solidifying the composition layer is to make the repairing process of the thermally conductive and electrically insulating member possible.

Claims 24-26, and 30-34 should be reconsidered allowable for at least the same reasons as claim 23, from which they depend. Favorable reexamination and reconsideration of claims 23-34 are requested.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612)455-3804.

Respectfully Submitted,



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